LIMITED WARRANTY

Instrumentation purchased new from Welch Allyn is warranted to be free from defects in material and workmanship under normal use and service for a period of one year from the date of first shipment from Welch Allyn. This warranty shall be fulfilled by Welch Allyn or its authorized representative repairing or replacing at Welch Allyn's discretion, any such defect, free of charge for parts and labor.

Welch Allyn should be notified via telephone of any defective product and the item should be immediately returned, securely packaged and postage prepaid to Welch Allyn. Loss or damage in shipment shall be at purchaser's risk.

Welch Allyn will not be responsible for loss associated with the use of any Welch Allyn product that (1) has had the serial number defaced, (2) has been repaired by anyone other than an authorized Welch Allyn Service Representative, (3) has been altered, or (4) has been used in a manner other than in accordance with instructions.

THIS WARRANTY IS EXCLUSIVE AND IN LIEU OF ANY IMPLIED WARRANTY OR MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE, OR OTHER WARRANTY OF QUALITY, WHETHER EXPRESSED OR IMPLIED. WELCH ALLYN WILL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

Thermo Menu

Service Manual

Welch Allyn™

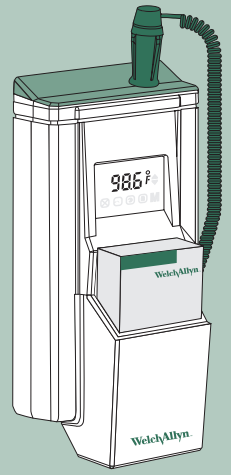
7420 Carroll Road, San Diego, CA
(619) 621-6600 or (800) 854-2904

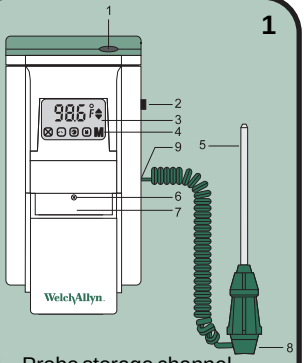
70777-000C

Welch Allyn™

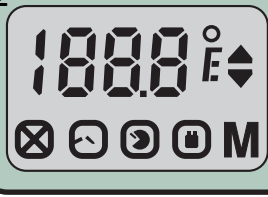
Model 650

Directions For Use





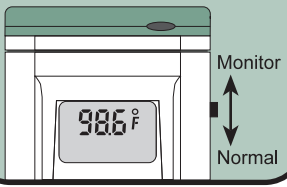
1. Probe storage channel
2. Normal/Monitor mode select switch
3. Display
4. Display indicators
5. Probe
6. Battery access screw
7. Probe cover box holder/ battery access door
8. Ejection button
9. Probe cord connector & receptacle



Note: Temperature measurement displays in this *Directions For Use* booklet are in °F. International units will display measurements in °C.

SETUP

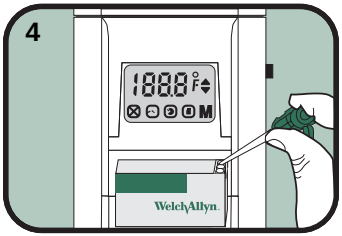
1. Unpack the Welch Allyn Thermometer System. Check for any damage that may have occurred during shipping.
2. Select the desired probe (oral probe - green body, rectal probe - red body).
3. Insert the probe cord connector into the probe receptacle. Check that the connection is secure.
4. Observe the 7-second display test, ensuring that no display segments are missing (Fig. 2).

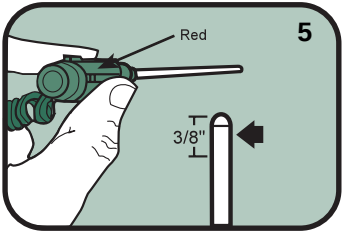


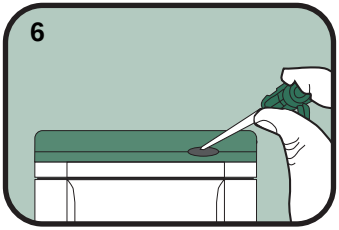
5. Insert the probe shaft into the probe storage channel (Fig. 1).
6. Remove the tab from a box of 25 Welch Allyn disposable probe covers and insert the box into the holder on the thermometer.

OPERATION

1. Select the temperature measurement mode (normal or monitor - Fig. 3). **Most temperatures are taken in the normal mode.**
2. Withdraw the probe from the storage channel and observe the display test. The unit will then display 84.0°F (28.9°C) with the low temperature arrow **ON** until the probe temperature rises above 84.0°F (28.9°C).







3. Load a probe cover onto the probe. Hold the probe collar with thumb and forefinger, being careful not to hold or press the "eject" button. Press the collar down firmly to secure the cover (Fig. 4).

4. Take the temperature:

   FOR ORAL TEMPERATURES, insert the probe tip gently into the patient's slightly opened mouth. Carefully slide the probe under the tongue on either side of the mouth to reach the sublingual pocket.

   FOR RECTAL TEMPERATURES, gently insert the probe only 1 cm (3/8 of an inch) inside is the rectal sphincter (less for infants and children). ***WARNING:* Incorrect insertion can cause bowel perforation**. (FIG. 5) Tilt the probe to insure good tissue contact and continue to keep buttocks separated until measurement cycle is complete.

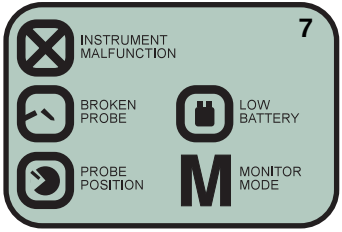
5. During a temperature measurement cycle in the **NORMAL** mode, a continuously increasing temperature should be observed on the display. When the final temperature has been reached, a tone will sound and a temperature will be displayed. When using the **MONITOR** mode, allow the temperature readout to stabilize for 3 minutes. The patient may then be continuously monitored for as long as necessary.

6. After the temperature measurement is complete, eject the probe cover by firmly pressing the "eject" button on the probe. (Fig. 1).

7. Insert the probe into the storage channel to clear the display, in preparation for another temperature. (Fig. 6).

FEATURES

1. **Two Temperature Measurement Modes.** Normal mode provides a rapid means of oral or rectal temperature taking under most conditions. Monitor mode

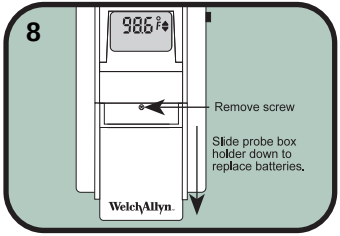


generally used for long term monitoring or when difficult situations prevent accurate temperatures from being taken in the normal mode.

SELF TESTS

Two internal tests are activated each time a temperature is taken:

1. **Calibration Check:** an internal check for proper calibration.
2. **Microprocessor Self Check:** an internal check for proper microprocessor operation, including a test of the entire system.



ERROR INDICATORS/BATTERY REPLACEMENT

1. **Error Indicators.** One of four indicators may appear on the display: **Malfunction, Broken Probe, Probe Position, and Low Battery (Fig. 7).**
2. **Battery Replacement.** To replace the batteries, remove the battery compartment access screw behind the probe cover box (Fig. 8). Slide the access cover to expose the batteries. Replace with three new AA Alkaline batteries. A 25 second display test is automatically performed following battery replacement.

SPECIFICATIONS

- Range: 84.0°F - 108.0°F (28.9°C - 42.2°C).
- Battery Capacity: Up to 1000 hours normal use.
- Calibration Accuracy: +/-0.2°F (+/-0.1°C).
- Dimensions: length 7 inches; width 3.7 inches; height 2.4 inches; weight 13 ounces.

CLEANING AND STERILIZATION

Normal cleaning procedure is to wipe with alcohol, warm water, or nonstaining disinfectant.

ACCESSORIES AVAILABLE

- Calibration Key for verifying calibration - inserts in place of probe plug and provides correct reading of 97.3°F (22.06°C).
- Oral and rectal probes

CUSTOMER SERVICE

For customer service, please call (800) 854-2904